

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 84-70
NPDES NO. CA0037753

REISSUING WASTE DISCHARGE REQUIREMENTS FOR:

SANITARY DISTRICT NO. 5 OF MARIN COUNTY AND
CITY OF BELVEDERE, MARIN COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. Sanitary District No. 5 of Marin County, (hereinafter called the Discharger), submitted a report of waste discharge dated March 14, 1984 for reissuance of NPDES Permit No. CA0037753.
2. The Discharge presently discharges an average dry weather flow of 0.9 million gallons per day (mgd) from its secondary treatment plant which has a dry weather design capacity of 0.98 mgd. This plant treats domestic wastewater from the City of Belvedere and Town of Tiburon. Treatment consists of primary sedimentation, biological treatment using activated sludge, followed by secondary sedimentation, chlorination and dechlorination. Sludge is treated by thickening, anerobic digestion and disposed to landfill. The treated wastewater combines with effluent from Sewerage Agency of Southern Marin and is discharged into Racoon Strait, a water of the State and United States, through a submerged diffuser about 850 feet offshore at a depth of 90 feet below mean lower low water. (Latitude 37 deg., 52 min., 12 sec.) (Longitude 122 deg., 27 min., 5 sec.)
3. The discharge is presently governed by Waste Discharge Requirements, Order No. 79-144 which allows discharge into Richardson Bay.
4. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on July 21, 1982. The Basin Plan contains water quality objectives for Racoon Strait and contiguous waters.
5. The beneficial uses of Racoon Strait and contiguous water bodies are:
 - ° Water contact recreation and Non-contact water recreation
 - ° Wildlife Habitat
 - ° Preservation of Rare and Endangered Species

- Marine Habitat
 - Fish Migration and Spawning
 - Shellfishing Harvesting
 - Navigation
 - Commercial and Sport Fishing
6. An Operations and Maintenance Manual is maintained by the Discharger for purposes of providing plant and regulatory personnel with a source of information describing all equipment, facilities, and ended operating strategies, process control monitoring, and maintenance activities. In order to remain a usefull and relevant document, this manual should be kept updated to reflect significant changes in plant facilities or activities.
 7. This Order serves as an NPDES permit, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.
 8. The Discharger and interested agencies and persons have been notified of the Board's intent to reissue requirements for the existing discharge and have been provided with the opportunity for a public hearing and the opportunity to submit their written views and recommendations.
 9. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, that the Discharger in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisins of the Clean Water Act as amended and regulations and guidelines adopted thereunder shall comply with the following:

A. Discharge Prohibitions

1. Bypass or overflow of untreated or partially treated wastewater to waters of the State either at the treatment plant or from any of the collection system and pump stations tributary to the treatment plant is prohibited.
2. The average dry weather flow shall not exceed 0.98 mgd. The average shall be determined over three dry consecutive months each year.
3. Discharge at any point at which the wastewater does not receive an initial dilution of at least 10:1 is prohibited.

B. Effluent Limitations

1. Effluent discharged shall not exceed the following limits:

<u>Constituents</u>	<u>Units</u>	<u>30-day Average</u>	<u>7-day Average</u>	<u>Maximum Daily</u>	<u>Instantaneous Maximum</u>
a. Settleable Matter	ml/l-hr	0.1	-	-	0.2
b. BOD or	mg/l	30	45	60	-
Carbonaceous BOD(1)	mg/l	25	40	50	-
c. Total Suspended Solids	mg/l	30	45	60	-
d. Oil & Grease	mg/l	10	-	20	-
e. Total Chlorine Residual(2)	mg/l	-	-	-	0.0

(1) Effective upon its promulgation in a new secondary treatment definition by EPA.

(2) Requirement defined as below the limit of detection in standard test methods and is to be met at the Dechlorination Facility.

2. The arithmetic mean of the biochemical oxygen demand (5-day, 20°C) and suspended solids values, by weight for effluent samples collected in a period of 30 consecutive calendar days shall not exceed 15 percent of the arithmetic mean of the respective values, by weight, for influent samples collected approximately the same times during the same period (85 percent removal).
3. The pH of the discharge shall not exceed 9.0, nor be less than 6.0.
4. The survival of test organisms acceptable to the Executive Officer in 96-hour bioassays of the effluent shall achieve a 90 percentile value of not less than 50% survival based on the ten most recent consecutive samples.
5. Representative samples of the effluent shall not exceed the following limits:(1)

<u>Constituent</u>	<u>Unit of Measurement</u>	<u>6 month Median</u>	<u>Daily Maximum</u>
Arsenic	mg/l	0.01	0.02
Cadmium	mg/l	0.02	0.03
Total Chromium	mg/l	0.005	0.01
Copper	mg/l	0.2	0.3
Lead	mg/l	0.1	0.2
Mercury	mg/l	0.001	0.002
Nickel	mg/l	0.1	0.2

<u>Constituent</u>	<u>Unit of Measurement</u>	<u>6 month Median</u>	<u>Daily Maximum</u>
Silver	mg/l	0.02	0.04
Zinc	mg/l	0.3	0.5
Cyanide	mg/l	0.1	0.2
Phenolic Compounds	mg/l	0.5	1.0
Total Identifiable Chlorinated Hydrocarbons (2)	mg/l	0.002	0.004

- (1) These limits are intended to be achieved through secondary treatment, source control and application of pretreatment standards.
 - (2) Total Identifiable Chlorinated Hydrocarbons shall be measured by summing the individual concentrations of DDT, DDD, DDE, aldrin, BHC, chlordane, endrin, heptachlor, lindane, dieldrin, polychlorinated biphenyls and other identifiable chlorinated hydrocarbons.
6. The running median value for the MPN of total coliform in any five (5) consecutive effluent samples shall not exceed 240 coliform organisms per 100 milliliters. Any single sample shall not exceed 10,000 MPN/100 ml.

C. Receiving Water Limitations

1. The Discharge of waste shall not cause the following conditions to exist in waters of the State at any place:
 - a. Floating, suspended, or deposited macroscopic particulate matter or foam;
 - b. Bottom deposits or aquatic growths;
 - c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
 - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
 - e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge of waste shall not cause the following limits to be exceeded in waters of the state in any place within one foot of the water surface:

- a. Dissolved oxygen 5.0 mg/l minimum. Median of any three consecutive months shall not be less than 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
- b. Dissolved Sulfide 0.1 mg/l maximum
- c. pH Variation from natural ambient pH by more than 0.5 pH units.
- d. Un-ionized ammonia 0.025 mg/l as N Annual Median
0.4 mg/l as N Maximum

- 3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resource Control Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 or the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. Provisions

- 1. The requirements prescribed by this Order supersede the requirements prescribed by Order No. 79-144. Order No. 79-144 is hereby rescinded.
- 2. Where concentration limitations in mg/l are contained in this permit, the following mass emission limitations shall also apply as follows:

$$\text{Mass Emission Limit in (lbs/day), (kg/d)} = \text{Concentration limit in mg/l} \times (8.34), (3.79) \times \text{Actual Flow in mgd averaged over the time interval to which the limit applies.}$$
- 3. In reviewing compliance with the limits of Effluent Limitations B.2 of this Order, the Board will take special note of the difficulties encountered in achieving compliance during periods of high wet weather flow.
- 4. The Discharger shall comply with all sections of this Order immediately upon adoption.
- 5. The Discharger shall review and update his Operations and Maintenance Manual annually, or in the event of significant facility or process changes, shortly after such changes have occurred. Annual revisions, or letters stating that no changes are needed, shall be submitted to the Regional Board by April 15 of each year. A time schedule for completion of the initial revision shall be submitted by January 1, 1985. Documentation of operator input and review shall accompany each annual update.

6. The Discharger shall review and update by January 1, 1985 annually its contingency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a contingency plan will be basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.
7. The Discharger shall comply with the self-monitoring program as adopted by the Board and as may be amended by the Executive Officer.
8. The Discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated April 1977, except A.12 and B.3. Item C.2 of the Standard Provisions shall read as follows: The "30-day or 7-day average" discharge is the total discharge by weight during 30 or 7 consecutive calendar day periods, respectively, divided by the number of days in the period that the facility was discharging. Where less than daily sampling is required by this permit, the 30-day or 7-day average discharge shall be determined by the summation of all the measured discharges by weight divided by the number of days during the 30 or 7 consecutive calendar day period when the measurements were made. For other than 7-day or 30-day periods, compliance shall be based on the average of all measurements made during the specified period.
9. This Order expires October 17, 1989. The Discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.
10. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objections. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Roger B. James, Executive Officer do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on October 17, 1984.

ROGER B. JAMES
Executive Officer

Attachments:

Standard Provisions and
Reporting Requirements, April 1977
Self-Monitoring Program
Resolution 74-10

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

Sanitary District No. 5 of Marin County

NPDES NO. CA. 0037753

ORDER NO. 84-70

CONSISTS OF

PART A

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT

<u>Station</u>	<u>Description</u>
A-001	At any point in the treatment facilities headworks at which all waste tributary to the system is present and prior to any phase of treatment.

B. EFFLUENT

<u>Station</u>	<u>Description</u>
E-001	At any point in the outfall between the point of discharge and the point at which all waste tributary to the outfall is present and at which all treatment has been completed.
E-001-D	At any point in the disinfection facilities for Waste 001 at which point adequate contact with the disinfectant is assured. (May be coincident with E-001)
E-001-S	At any point in the treatment and disposal facilities following dechlorination.

C. RECEIVING WATERS

<u>Station</u>	<u>Description</u>
C-1	At a point in Racoon Strait directly above the center of the diffuser.
C-2-A C-2-B	At points in Racoon Strait located 200 feet upstream and downstream, respectively of the center of the diffuser.
C-R	At a point in Racoon Strait located 1000 feet upstream from the diffuser.

D. LAND OBSERVATIONS

<u>Station</u>	<u>Description</u>
P-1 thru P-'n'	Located at the corners and midpoints of the perimeter fenceline surrounding the treatment facilities. (A sketch showing the locations of these stations will accompany each report.)

E. OVERFLOWS AND BYPASSES

Station

Description

O-1 thru
O-'n'

Bypass or overflows from manholes, pump
stations or collection system.

Note: Bypass shall be reported to this
Regional Board by telephone
immediately after occurrence.

A written report shall be filed with the
Board within 5 working days which shall
contain information such as quantity
involved, location, course of bypass,
nature of affects, and corrective measures
taken.

II. SCHEDULE OF SAMPLING MEASUREMENTS AND ANALYSIS

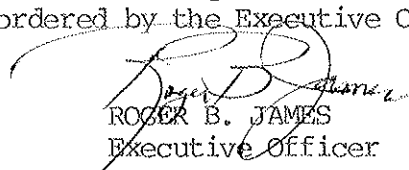
The schedule of sampling, measurements and analysis shall be that given
in Table I.

III. MODIFICATIONS TO "PART A"

A. This monitoring program does not include the following sections of
Part A, dated January 1978: C.3, C.4.

I, Roger B. James, Executive Officer, hereby certify that the foregoing
Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this
Regional Board's Resolution No. 73-16 in order to obtain data and
document compliance with waste discharge requirements established in
Regional Board Order No. 84-70.
2. Is effective on the dated indicated below.
3. May be reveiwd at any time subsequent to the effective date upon
written notice from the Executive Officer or request from the
discharger, and revisions will be ordered by the Executive Officer.


ROGER B. JAMES
Executive Officer

Effective Date SEPTEMBER 6, 1985

Attachments: Table I
Form A

TABLE 1 (continued)
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A-001		E-001		E-001-D		E-001-S		P	O	L	C	
TYPE OF SAMPLE		C-24	G	C-24	G	Cont	Cont	C-24	O	O	O	G	
Mercury (mg/l & kg/day)				2/y									
Nickel (mg/l & kg/day)				2/y									
Zinc (mg/l & kg/day)				2/y									
Phenolic Compounds (mg/l & kg/day)				2/y									
All Applicable Standard Observations									W	(1) E			
Bottom Sediment Analyses and Observations													
Total Ident. Chlor. Hydro- carbons (mg/l & kg/day)				Y									
Un-ionized Ammonia (mg/l)												Q	

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
 C-24 = composite sample - 24-hour
 C-X = composite sample - X hours
 (used when discharge does not
 continue for 24-hour period)
 Cont = continuous sampling
 DI = depth-intergrated sample
 BS = bottom sediment sample
 O = observation

FREQUENCY OF SAMPLING

E = each occurrence
 H = once each hour
 D = once each day
 W = once each week
 M = once each month
 Y = once each year

TYPES OF STATIONS

I = intake and/or water supply stations
 A = treatment facility influent stations
 E = waste effluent stations
 C = receiving water stations
 P = treatment facilities perimeter stations
 L = basin and/or pond levee stations
 B = bottom sediment stations
 G = groundwaters stations

2/H = twice per hour
 2/W = 2 days per week
 5/W = 5 days per week
 2/M = 2 days per month
 2/y = once in March and
 once in September
 Q = quarterly, once in
 March, June, Sept.
 and December

2H = every 2 hours
 2D = every 2 days
 2W = every 2 weeks
 3M = every 3 months
 Cont = continuous

FOOTNOTES FOR TABLE I

- (1) During any day when bypassing occurs from any treatment unit(s) in the plant, the monitoring program for the effluent shall include the following in addition to the above schedule for sampling, measurement and analyses:
 1. Composite sample for BOD, total suspended solids, oil and grease.
 2. Grab sample for Coliform (Total and Fecal), Settleable matter.
- (2) Oil and grease sampling shall consist of 3 grab samples taken at equal intervals during the sampling day, with each grab being collected in a glass container. A composite shall be made using equal volumes of each grab. Each glass container used for sample collection or mixing shall be thoroughly rinsed with solvent as soon as possible after use, and the solvent rinsings shall be added to the composite wastewater sample for extraction and analysis.
- (3) Chlorine residual following dechlorination shall be reported using the attached form A or equivalent.